4 Provider Quality Assurance

Improving immunization practices in providers' offices is one of the most effective methods to increase immunization coverage. The role of the Immunization Program is to oversee quality assurance of all immunization practices in the providers' offices.

Examples of quality assurance activities includes: 1) evaluating a providers' vaccine handling procedures, 2) assessing a provider's immunization practices, 3) providing specialized training for provider's staff and 4) promoting accepted standards for immunization practices. Continuous quality improvement in these areas ensures that viable vaccines are administered in accordance with the recommended schedule, opportunities to vaccinate are not missed, and barriers to vaccinate are minimized.

Keywords:
ACIP recommendations
AFIX
Barriers to immunization
In-service training
Missed opportunities to vaccinate
Peer Training
Perinatal Hepatitis B Prevention
Provider assessment
Provider compliance
Provider education & training
Satellite training course
Standards for Adult Immunization Practices
Standards for Pediatric Immunization Practices
Vaccine handling
VFC requirements
VFC fraud

Monitoring quality assurance entails conducting site visits to providers' offices to: 1) review VFC eligibility,, vaccine ordering, storage and handling procedures and 2) to provide training when providers' practices in these areas are not adequate. On the rare occasions when fraud and abuse of public vaccine is identified, immunization programs are responsible for conducting an investigation and reporting these instances to the proper authorities. Program managers should refer to the current VFC Program Operations Guide for additional information about vaccine accountability and quality assurance.

Assessing a provider's level of immunization coverage is another role of the Immunization Program. One of the most effective strategies to improve immunization coverage called *AFIX* involves **A**ssessing immunization records, **F**eedback of results to the provider, offering **I**ncentives such as rewards or praise to the provider, and e**X**change of results to stimulate them to identify and implement effective strategies to increase immunization coverage Beginning in 2000, CDC made additional VFC funding available to increase the number of site visits to private VFC providers and to incorporate AFIX activities into traditional VFC site visits.

Other evidence-based strategies that reduce barriers to immunizations and improve immunization coverage include 1) provider and patient reminder/recall systems, 2) reducing out-of-pocket vaccine and vaccine administration expenses, and 3) incorporating standing orders for immunizations into the medical setting.

ACTIVITY AREAS

4.1 Provider Education
4.2 Provider Site Visits
4.3 Perinatal Hepatitis B Prevention

References:

- 2002 VFC Program Operations Guide (CDC)
- *Standards for Pediatric and Adolescent Immunization Practices* (CDC) www.cdc.gov/mmwr/PDF/rr/rr4205.pdf
- *Standards for Adult Immunization Practices - Draft,* (CDC)
- Recommendations of the Advisory Committee on Immunization Practices: Programmatic Strategies to Increase Vaccination Rates -- Assessment and Feedback of Provider-Based Vaccination Coverage Information *www.cdc.gov/mmwr/preview/mmwrhtml/00040662.htm*
- *Managing a Hepatitis B Prevention Program: A Guide to Life as a Program Coordinator,* (CDC)
- American College of Obstetricians and Gynecologists (ACOG) Guidelines for Rubella (prenatal testing/postpartum vaccination) www.acog.org
- Vaccine-Preventable Disease: Improving Vaccination Coverage in Children, Adolescents and Adults. *Guide to Community Preventive Services*, *Task Force for Community Preventive Service* (CDC) (MMWR 1999, 48 RR:8:1-15)
- *Vaccine Information Statements: What you need to know,* (CDC) (CD Rom 2001 Immunization Works)
- VAERS web site www.VAERS.org
- ACIP Statement on Routinely Recommended Childhood Adolescent, Adult and General Immunization, (CDC) (CD Rom 2001 Immunization Works)
- Epidemiology and Prevention of Vaccine Preventable Diseases (The Pink Book), (CDC, 7th Edition, April 10, 2002) (CD Rom 2001 Immunization Works)
- VFC-AFIX (CDC) (CD Rom 2001 Immunization Works)
- *Evaluating the Utililization of Health Department Immunization-only Clinics: A Toolkit for Immunization Programs*, available from the Program Support Branch at 404-639-8222, beginning August, 2001)
- *AFIX website: www.cdc.gov\nip\AFIX*

4.1 PROVIDER EDUCATION

ACTIVITIES to educate providers about strategies that optimize immunization practices and improve immunization coverage.

☞ **For more information on how provider education activities are impacted by HIPAA, please refer to the MMWR Supplement dated May 2, 2003, "HIPAA Privacy Rule and Public Health – Guidance from CDC and the U.S. Department of Health and Human Services" in Appendix XX**

4.1.1 Develop and implement a communication plan to disseminate immunization messages and information to providers. The plan should clearly identify the state's communication objectives and the strategies designed to achieve these objectives.

✓ **4.1.2** Distribute immunization information to immunization providers and to provider organizations (e.g., ACIP, AAP, AAFP, ACP) through special mailings, newsletters, communicable disease bulletins, websites, and email listserves.

See *4.1.01 INFORMATION PROVIDERS NEED to Optimize Immunization Practices*.

4.1.01 INFORMATION PROVIDERS NEED to know to optimize immunization practices: General Programmatic Topics

- ACIP recommendations for infants, children, adolescents and adults
- Information about the VFC program, its benefits to their eligible populations, and how to enroll
- Use of Vaccine Information Statements
- State laws, rules and regulations regarding immunization requirements for school entry, day care, nursing homes, colleges and universities, and employment
- Medicare, Medicaid, SCHIP and other public and private health insurance plans enrollment and claims procedures
- VFC vaccine ordering procedures and appropriate vaccine handling and storage requirement
- Evidence-based vaccine strategies to improve immunization coverage
- Provider assessment methods and standards such as CASA, LQA, HEDIS, etc.
- Immunization registries -- availability, benefits, enrollment procedures and submitting immunization records
- Training and educational opportunities, such as CDC-sponsored VPD courses, distance-learning methods such as satellite broadcasts and web-based training, VFC Workshops, State/local immunization-related in-service seminars and the annual National Immunization Conference
- Systems to remind patients of immunizations needed and to recall patients who are late for receiving needed immunizations

✓ **4.1.3** Distribute and promote *Standards of Pediatric and Adolescent Immunization Practices* and *Standards for Adult Immunization Practices* to all public and private immunization providers directly or in collaboration with public and private provider organizations using mailings, newsletters, and other publications. *See 4.1.02 INFORMATION PROVIDERS NEED to Optimize Immunization Practices: Summary of Standards for Pediatric, Adolescent and Adult Immunization Practices.*

4.1.02 INFORMATION PROVIDERS NEED to Optimize Immunization Practices: Summary of Standards for Pediatric, Adolescent and Adult Immunization Practices

- Immunization services are readily available to parents, guardians, and adult patients
- Vaccinations are coordinated with other health services when possible
- Barriers to receiving vaccines (e.g., requiring a physical exam before administering vaccines) are eliminated
- Patient's out-of-pocket expenses are eliminated or minimized
- Immunization status of each patient is routinely reviewed
- Patients are evaluated for contraindications for vaccination and only valid contraindications are followed
- Patients are informed about risks and benefits of immunization in a culturally-appropriate manner and in easy-to-understand language - "Vaccination Information Statements" are provided before immunizations are given
- Written protocols concerning all aspects of immunization such as vaccine storage and handling, vaccination schedules, vaccine administration, record maintenance, etc., are available at all locations where vaccines are administered
- Provider staff are adequately trained in properly administering vaccines
- All recommended vaccine doses are administered at the same visit
- Patient immunization office records are accurate, complete and easily accessible, and patients are provided with an updated 'shot card' at each visit
- All office/clinic personnel having contact with parents, guardians, and patients are appropriately immunized
- Adverse events following vaccination are reported promptly to VAERS
- Reminder/recall systems are instituted and used
- Standing orders for vaccinations are employed
- Provider coverage and immunization practices are assessed regularly

4.1.4 Utilize all communication tools with a provider to promote provider-based strategies to improve immunization practices and coverage.

Performance Measure*: Increase in the number of individual and group trainings, including state and regional conferences, site visits, newsletters, and websites that focus on strategies to increase immunization coverage in both private and public immunization clinics.*
Targets: *Set by individual program*

4.1.5 Communicate with immunization providers to ensure that they access CDC, state and local agency web sites on immunizations.

Performance Measure*: Periodically, conduct a survey to determine whether immunization providers are accessing various websites and usefulness of websites.*

Targets: *Set by individual program*

ACTIVITIES to train providers on immunization practices and requirements:

✓ **4.1.6** Conduct presentations, seminars, workshops and in-service training on ☆ immunization related topics for public and private health care professionals in collaboration with physician, nurse, hospital and public health professional organizations. See: *4.1.0 INFORMATION Providers Need to Know to Optimize Immunization Practices.*

Performance Measure: *Number of presentations, workshops, etc., delivered*
Performance Measure: *Number of participants for each presentation, workshop, etc., by discipline and institution (physician, nurse, public, private, etc.)*
Performance Measure: *Number of training sessions concerning VFC-AFIX or other evidenced-based interventions to improve coverage*
Targets: *Set by individual program*

✓ **4.1.7** In collaboration with provider organizations such as AAP and AAFP, use trained
☆ peer physicians to conduct a practice-based seminars on immunization basics for private providers. See *4.1.02 INFORMATION Providers Need to Know to Optimize Immunization Practices*.

Performance Measure: *Number of seminars conducted using trained physician peers.*
Target: *Set by individual program*

✓ **4.1.8** Sponsor CDC distance-learning opportunities such as the CDC satellite broadcasts and web-based training on vaccine preventable diseases and immunization issues.

Performance Measure: *Number of participants for each satellite course by attendee category (physician, nurse, public, private, etc.)*
Target: *Set by individual program*

✓ **4.1.9** Conduct workshops for public and private VFC providers to provide instruction on vaccine handling and management techniques, VFC program eligibility and screening for children and adolescents, and required VFC reports.

Performance Measure: *Number and percent of public and private providers attending the workshops, by provider type*
Target: *Set by individual program*

4.1.10 During workshops, courses and in-service training sessions, measure providers' level of knowledge and compliance with pediatric, adolescent and adult practice standards.

Performance Measure: Number of pre and post tests administered at courses and in-service training sessions.
Performance Measure: % improvement in providers' knowledge of and compliance with pediatric, adolescent and adult immunization practice standards.
Target: To be set by individual program.

ACTIVITIES to ensure that providers are informed about vaccine safety issues and requirements:

See: *Chapter 6 Consumer Information* and *Chapter 7.4 Vaccine Safety* for additional activities related to vaccine safety and the Vaccine Injury Compensation Program.

✓ **4.1.11** Maintain a communication system (newsletter, list serve, etc.) to address vaccine safety issues and controversies, including media and CDC or FDA statements. Use the communication system to disseminate vaccine safety information.

✓ **4.1.12** Remind all providers of their responsibility to inform their patients of the Vaccine Injury Compensation Program (VICP) and to discuss and answer client questions concerning vaccine benefits and risks, contraindications, adverse events and the steps to follow if an adverse event occurs. See: *4.1.03 PROVIDER RESPONSIBILITIES under the VICP.*

4.1.03 PROVIDER RESPONSIBILITIES under the National Vaccine Injury Compensation Program
✓ Provide their clients (or their parents/legal representative) prior to immunization the most current Vaccine Information Statement (VIS) for each vaccine
✓ Ensure that clients read or have read to them the VIS

✓ **4.1.13** Disseminate detailed information to providers and to provider organizations regarding the appropriate use of VIS (CDC pamphlet: *Vaccine Information Statements: what you need to know)*

Performance Measure: *Number of direct or collaborative efforts to promote VIS awareness and use among providers.*
Performance Measure: *As assessed through VFC site visits, the number and percent of providers using VIS correctly.*

Target: *100% of VFC enrolled providers.*

✓ **4.1.14** Disseminate information about the Vaccine Adverse Events Reporting Systems (VAERS), which adverse events must or may be reported and the reporting process, to all concerned. Reach all providers directly and/or collaboratively with provider organizations through mailings, meetings, and educational materials.

Performance Measure: *Number of direct or collaborative efforts to promote awareness, importance and appropriate use of VAERS and VAERS forms among providers*
Target: *Set by individual program*

✓ **4.1.15** Assure that providers are informed, either directly or collaboratively with provider organizations, of current and new vaccines covered by the National Childhood Vaccine Injury Act and of the federal requirement for record keeping content.

Performance Measure: *Number of direct or collaborative efforts to educate and promote the National Childhood Vaccine Injury Act and its content among providers*
Target: *Set by individual program*

ACTIVITIES to ensure providers are informed about VPD reporting and related requirements:

✓ **4.1.16** Disseminate information on legal requirements and procedures for reporting of vaccine preventable diseases to state/local health departments (directly and/or through provider organization mailings, publications, trainings and education materials).

Performance Measure: *Number of direct or collaborative efforts to educate and promote VPD reporting.*
Performance Measure: *Percent increase in providers reporting vaccine preventable diseases to state/local health departments.*
Target: *Set by individual program*

4.2 PROVIDER SITE VISITS

ACTIVITIES to assure appropriate vaccine handling procedures and compliance with VFC accounting requirements:

☞ **For more information on how provider site visit activities are impacted by HIPAA, please refer to the MMWR Supplement dated May 2, 2003, "HIPAA Privacy Rule and Public Health – Guidance from CDC and the U.S. Department of Health and Human Services" in Appendix XX**

✓ **4.2.1** Conduct annual site visits to providers receiving publicly funded vaccine ☞ (preferably in combination with a provider AFIX visit) to observe and evaluate critical vaccine management procedures and compliance with VFC program requirements.
See 4.2.01 WHAT TO OBSERVE AND EVALUATE during provider site visits. Refer to the current VFC Program Operations Guide for detailed information on conducting provider site visits.

Performance Measure: *Number and percent of public and private VFC provider site visits completed annually*
Target: *Not less than 25% of the total number of enrolled VFC providers.*

Performance Measure: *Daily temperature log entries for all vaccine storage units under the control of state/local immunization programs or their contractors*
Performance Measure: *100% of all children are screened to determine VFC eligibility in each VFC provider site.*
Performance Measure: *100% of all VFC providers are reporting all wasted and expired vaccines.*
Performance Measure: *100% of all VFC providers can demonstrate the physical security of publicly funded vaccine.*
Performance Measure: *100% of all VFC providers are familiar with and utilize the vaccine ordering procedures.*
Performance Measure: *100% of all VFC providers will be trained on procedures for routine and emergency vaccine storage and handling.*

4.2.01 WHAT TO OBSERVE AND EVALUATE during provider site visits:

- Quality and appropriate use of vaccine storage facilities
- Use and review of temperature logs
- Reporting and disposal of wasted and expired antigens
- Physical security of vaccine (restriction of access, refrigerator locks, and burglar alarms)
- Vaccine ordering procedures
- Accuracy of information on the VFC Provider Profile
- Quality, consistency and documentation of eligibility screening
- Staff training on procedures for routine and emergency vaccine storage and handling.

✓ **4.2.2** Provide immediate training on appropriate vaccine ordering, handling, storage and accounting, as needed, to the relevant provider office staff. Document all training provided and follow-up with providers on each recommendation.

✓ **4.2.3** Identify, investigate and prevent fraud and abuse of 317 vaccines and VFC vaccines. If VFC vaccine is involved, collaborate with the State Medicaid Program.

✓**4.2.4** Complete a written report of all VFC site visits and enter results into an electronic database within an established time frame. Identify and monitor providers who are deficient in implementing any of the VFC requirements.

4.2.5 Prioritize VFC provider site visits with emphasis on large volume practices and high-risk or underserved populations.

4.2.6 Document the name, medical license number and Medicaid provider number (if applicable) of each provider practicing at an enrolled site.

4.2.7 Conduct a survey to determine VFC-enrolled provider satisfaction with VFC program at least biennially.

✓ **4.2.8** Validate public clinic VFC profiles by analyzing the demographic information of current clients using public immunization clinics. See: *Evaluating the Utilization of Health Department Immunization-only Clinics: A Toolkit for Immunization Programs*, available from the Program Support Branch at (404) 639-8222 beginning August, 2001.

ACTIVITIES to assure that providers identify and appropriately immunize specific high-risk patients**:**

✓ **4.2.9** During site visits, evaluate providers' knowledge and practices ☆ concerning the recommended immunization schedule and their procedures to identify and immunize patients at high-risk of under-immunization or infection with VPDs.

Performance Measure: *Number of public and private providers with established procedures to identify and appropriately immunize high risk patients*
Target: *Set by individual program*

✓ **4.2.10** Work with the peer review organizations to promote written policies and standing orders for immunization in long-term care (LTC) facilities, such as nursing home and assisted-living facilities.

Performance Measure: *Number and percentage point increase of LTC facilities routinely following standing orders for immunizations*
Target: *Set by individual program*

✓ **4.2.11** Inform providers of prenatal care, obstetric services and post delivery follow-up of newborns about the need for post-partum rubella vaccination of rubella Ab-negative women before departure from the hospital.

Performance Measurement: *% of rubella Ab-negative women who receive rubella vaccination before discharge from the hospital.*
Target: *Conduct one state or project wide hospital record review at least every 3 years.*

ACTIVITIES to improve immunization coverage by improving provider immunization practices through AFIX, reminder/recall, standing orders and other evidence-based provider interventions:

Healthy People 2010 Objective on Provider Assessments of Immunization Levels:

14-25: Increase the proportion of providers who have measured the vaccination coverage levels among children in their practice population within the past 2 years.

Target and Baseline:

Objective	Increase in Providers Measuring Vaccination Levels	1997	2010
14-25a.	Public health providers	66%	90%
14-25b.	Private providers	6%	90%

Target setting method: 36% improvement for public health providers; 1400% improvement for private providers

✓ **4.2.12** Conduct AFIX provider visits to public and private VFC provider sites ☞ (preferably in combination with a provider site visit) to assess immunization practices and make recommendations for improvement.

Performance Measure: *Percent of public and private VFC providers assessed annually using the AFIX methodology*
Target*: At least 25% of all enrolled VFC providers.*

Performance Measure: *Percent of public and private VFC providers assessed who receive face to face feedback within two weeks of assessment.*
Target: *100% of all public and private providers who receive an AFIX visit should receive face to face feedback, in a timely manner, preferably within two weeks.*

✓ **4.2.13** Prioritize assessments with emphasis on relatively large volume practices
☞ and high-risk or underserved populations.

Performance Measure: *Percent of assessments conducted in large volume/high risk/underserved populations*
Target: *At least 50% of all high volume practices and those practices that provide immunizations to high-risk and underserved populations.*

✓ **4.2.14** Use CASA, mini-CASA, and/or a hybrid of these methodologies that
☞ incorporates Lot Quality Assurance Sampling as an assessment standard. For face to face feedback to the physician and office staff, use specific cases of missed opportunities to vaccinate as case-based diagnostic examples.

- **4.2.15** Within 12 months, repeat assessments of the largest public and private providers with the lowest coverage levels should be conducted and included as part of the total number of AFIX visits conducted for the calendar year.

Performance Measure: *Percent of assessments each year that are repeats.*
Target*: Set by individual programs based on the number of poor performing providers.*

✓ **4.2.16** Collaborate with public and private provider organizations, migrant/community health centers and MCOs to promote provider assessments and other evidence-based strategies to improve immunization coverage levels.

✓ **4.2.17** Collaborate with organizations that routinely serve adolescents and adults such as: 1) colleges and universities, and 2) those serving high risk adolescents and adult clients providers, such as nursing homes, STD clinics, and correctional facilities, to adapt assessment tools and assessment methods to meet the needs of their specific provider settings.

Performance Measure: *The number and percent of organizations that are assessing immunization coverage of their clients/enrollees, by type of organization, age group and vaccine.*
Target: *Set by individual program*

✓ **4.2.18** Complete the Incentive and eXchange part of the AFIX process by presenting
☞ provider assessment outcomes at state/local immunization meetings and

☆ professional meetings (MCO, AAP, AAFP); compare results among provider peer-groups, exchange ideas for improving provider practices, and award high-performers.

✓ **4.2.19** Promote the use of reminder/recall systems during AFIX visits
☆ See: *4.2.02 DEFINITIONS of Reminder / Recall*.

Performance Measure: *Percent [point increase] of providers who routinely use functional reminder/recall systems.*
Target: *Set by individual programs*

4.2.02 DEFINITIONS of Reminder / Recall:

- A reminder system provides a routine reminder of an upcoming immunization appointment
- A recall system provides routine notification of a missed appointment or overdue immunization and reschedules it
- Centralized systems that notify providers of their client's upcoming or missed appointments are called provider reminder/recall systems

✓ **4.2.20** Incorporate the pediatric, adolescent and adult immunization practice standards into protocols for conducting quality assurance reviews of public clinics and VFC provider sites. *See 4.1.02 Summary of Standards for Pediatric, Adolescent and Adult Immunization Practices*.

Performance Measure: *Number and percent [increase] of public and private providers who have implemented 75% or more of the Standards, by type of provider (e.g., pediatrician, family practice, and internist) and type of standard (pediatric, adolescent or adult) (Do health departments really ensure that each provider is complying with the standards?)*
Target*: Set by individual program*

Performance Measure: *Number and percent [increase] of VFC private and public providers who state that they routinely provide or update 'shot cards' at each visit.*

Performance Measure: *Decrease in the percentage of providers charging out-of-pocket vaccine or vaccine administration costs to client*
Targets: *Set by individual program*

✓ **4.2.21** During quality assurance reviews of public clinics, review and emphasize elements of the ☆ *Standards* that focus on removing barriers to immunization such as vaccine administration fees, physical exam requirements, lengthy waits, and prerequisite enrollment in other clinics. Promote the use of standing orders for immunizations, policies to give all recommended

immunizations simultaneously, and procedures for providing and updating client-held immunization records.

Performance Measure: *Percent of public immunization clinics that are implementing the key Standards*
Target: *100% of all public immunization clinics.*

4.2.22 Encourage all public and private VFC providers to develop or improve patient-oriented and community-based approaches by seeking the input (who is to seek input? State immunization program or providers? And if its providers, are they really going to conduct focus groups, which is what this is talking about, of their clinic patients?) of underserved clinic patients on how to better serve their immunization needs and provide more user-friendly services.

4.3 PERINATAL HEPATITIS B PREVENTION

For additional guidelines on perinatal hepatitis B prevention, refer to *Managing a Hepatitis B Prevention Program - A Guide to Life as a Program Coordinator.*

For additional activities related to perinatal hepatitis B prevention, please refer to Chapter 5: Service Delivery, Activity 5.1.10 and Chapter 7: Surveillance, Activities 7.1.19-20, and section 7.3 – Perinatal Hepatitis B Screening

ACTIVITIES to ensure provider access to information on perinatal hepatitis B prevention:

☞ **For more information on how perinatal hepatitis B prevention activities are impacted by HIPAA, please refer to the MMWR Supplement dated May 2, 2003, "HIPAA Privacy Rule and Public Health – Guidance from CDC and the U.S. Department of Health and Human Services" in Appendix XX**

4.3.1 Write a protocol for perinatal hepatitis B prevention that includes information about the program and the procedures for reporting HBsAg-positive women and their infants to the health department. Distribute the protocol to local health departments, prenatal care providers, delivery hospitals and laboratories. *See 4.3.01 INFORMATION PROVIDERS NEED to prevent perinatal transmission of hepatitis B.*

4.3.01 INFORMATION PROVIDERS NEED to prevent perinatal hepatitis B transmission:

- Recommendations/Requirements for HBsAg screening of all pregnant women at each pregnancy.
- Procedures for documenting HBsAg results in prenatal care providers' and hospital labor and delivery records.
- Requirements for reporting HBsAg positive pregnant women's test results to the health department.
- Importance of administering hepatitis B vaccine and HBIG within 12 hours of birth, completing the 3 dose hepatitis B vaccine series by 6 months of age and conducting post-vaccination serologic testing of infants born to HBsAg positive women.

✓ **4.3.2** Encourage birthing hospitals to develop
☆ and implement a written policy to provide the first dose of hepatitis B vaccine to all newborn infants prior to discharge.

Performance Measure: Number and percent of birthing hospitals routinely administering the first dose of hepatitis B vaccine to newborn infants in the hospital as measured by a hospital policy survey conducted at least every 3 years.
Target: Set by individual programs

✓ **4.3.3** Encourage prenatal care providers to maintain and use a written protocol for
testing, documenting, and informing birthing hospitals of the HBsAg status of pregnant women during each pregnancy.

Performance Measure: *Number and percent of prenatal care providers with written protocols for HBsAg testing, documenting and informing birthing hospitals as measured through a survey of Ob-Gyn practices.*
Target: *To be set by individual program.*
Performance Measure: *Percent of all pregnant women with documented maternal HBsAg status in hospital labor and delivery records.*
Target*: At least 90% of all pregnant women have documented HBsAg status in maternal record at time of delivery.*

ACTIVITIES to assure compliance with documentation and reporting procedures related to perinatal hepatitis B prevention:

✓ **4.3.4** Conduct site visits to prenatal care providers, birthing hospitals and laboratories to review and evaluate recording and reporting procedures critical to

identifying HBsAg-positive women and their infants; when less-than-optimum procedures are identified, take appropriate corrective action.

Performance Measure: *Number and percentage of birthing hospitals visited*
Target: *Set by individual programs*

Performance Measure: *Percent of delivery admission records with mothers' HBsAg status recorded for the current pregnancy.*
Target: *At least 90% of all pregnant women should have documented HBsAg status in maternal records.*

Performance Measure: *Number and percent increase of prenatal care providers, birthing hospitals and laboratories with written protocols for reporting HBsAg positive pregnant women to the health department as measured through a survey of Ob-Gyn, laboratory and hospital policy surveys.*
Target*: Set by individual programs, but hospital policy survey should be conducted at least once every 3 years.*

ACTIVITIES to assure completeness of HBsAg screening of pregnant women and treatment of perinatally-exposed newborns**:**

✓ **4.3.5** Conduct on-site random sample surveys of mothers' hospital delivery records to
☆ assess completeness of HBsAg screening and documentation of maternal HBsAg
☞status.

Performance Measure: *Number and percent increase of delivery hospitals visited to conduct a hospital record review.*
Target: *Set by individual programs, but should be done at least once every 3 years.*

Intermediate Measure: *Percent increase in the number of pregnant women with HBsAg status documented appropriately in their hospital record prior to delivery*
Target: *At least 90% of all pregnant women should have documented maternal HBsAg status in charts.*

✓ **4.3.6** Assess newborns' delivery records to evaluate birthing hospitals for
☆ timely and appropriate administration of hepatitis B vaccine and/or HBIG to infants
☞ born to women with positive or unknown HBsAg test results.

Performance Measure: *Percent of infants born to women with positive or unknown HBsAg test results who receive the birth dose of hepatitis B vaccine and/or HBIG within 12 hours of birth.*
Target*:* At least 90% of all infants born to HBsAg positive women or women whose HBsAg status is unknown must receive hepatitis B vaccine and/or HBIG within 12 hours of birth.

ACTIVITIES to assure that providers complete the vaccination series of infants exposed perinatally to hepatitis B:

✓ **4.3.7** Conduct case management to ensure completion of the three dose hepatitis B
☆ vaccine series and post-vaccination serologic testing of infants born to HBsAg
☞ positive/status unknown mothers. See: *4.3.02 ELEMENTS of Perinatal Hepatitis B Case Management.*

Outcome Measure: *Percent of infants of HBsAg-positive/unknown mothers who complete the remaining two dose hepatitis B vaccine series by six to eight months of age and receive post-vaccination serologic testing by 9-15 months of age*
Target: *At least 90% of infants exposed perinatally to hepatitis B virus.*

4.3.02 ELEMENTS of Perinatal Hepatitis B Case Management:
- An active data base (preferably computerized)
- Follow-up with providers via telephone, home visits, etc.
- Follow-up with patients/families as necessary via telephone, home visits, etc.

✓ **4.3.8** Develop and maintain a database to record key information about infants born
☞ to HBsAg-positive/status unknown mothers, including the name of provider and dates of vaccination for each case. A computerized tracking system should be used for case management.

✓ **4.3.9** Follow-up with pediatric well child care providers of infants of HBsAg
☆ positive/unknown mothers as necessary to assure timely completion of the hepatitis B vaccine series and, if appropriate, post-vaccination serologic testing.

Outcome Measure: *Percent of infants of HBsAg-positive/unknown mothers who complete the remaining two dose hepatitis B vaccine series by six to eight months of age and receive post-vaccination serologic testing by 9-15 months of age*
Target: *At least 90% of infants exposed perinatally to hepatitis B virus.*